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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,657	10/23/2003	Steven R. Ligon	SAIC0080-US	5863

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EXAMINER
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MANSFIELD, THOMAS L

ART UNIT	PAPER NUMBER
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3624

MAIL DATE	DELIVERY MODE
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11/24/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/690,657	<b>Applicant(s)</b> LIGON ET AL.	
	<b>Examiner</b> THOMAS MANSFIELD	<b>Art Unit</b> 3624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Response to Amendments***

1. This non-final Office Action is in reply to the Applicant's amendment filed on 10 August 2009.
2. Claims 1, 2, 4-6, 8, 9, and 14-16 have been amended.
3. Claims 1-20 are currently pending and have been examined.
4. This office action has been made non-final to order to correct deficiencies from the last office action.

**Response to Amendment**

***Response to Arguments***

5. In the previous office action, Claims 1-20 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants have amended Claims 1, 2, 4-6, 8, 9, and 14-16 to overcome the indefinite deficiency and the rejection **is withdrawn**.
6. Applicant's arguments filed 10 August 2009 have been fully considered and are persuasive. Adams et al. (Adams) (U.S. Pub. No. 2003/0070157) in view of Bowman-Amuah (U.S. 6,256,773) does not specifically teach using a maturity model to provide an indicator of the maturity of a company in view of the at least one maturity model [see Remarks pages 3-4]. Therefore, this office action is made non-final in order to provide a complete and thorough examination and is explained in the below new grounds of rejection.

***Specification***

7. The abstract of the disclosure is objected to because on page 1, paragraph 001, the specification claims priority to provisional application no. 60/421,101. However, upon investigation it is found that this is a typographical error and priority should have been made for provisional application number 60/421,065. Correction is required. See MPEP § 608.01(b).

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8. The disclosure is objected to because it contains embedded hyperlink and/or other form of browser-executable code **throughout various paragraphs** within the specification (emphasis added). Although a prior objection to the disclosure was raised, only two areas within the specification were amended. Applicant is further required to review the entire specification and delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
10. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paulk et al. (Paulk), "Capability Maturity Model for Software, Version 1.1", Software Engineering Institute, Carnegie Mellon University, 1993, in view of Bowman-Amuah (U.S. 6,256,773).

With regard to Claims 1, 15, 17, 18, and 20, Paulk teaches *method for determining the maturity of a company in view of at least one maturity model* (maturity model) (see at least pages 7-14) *comprising:*

- *providing individual requirements* (Five Levels of Software Process Maturity, software requirements) *of the at least one maturity model on a display* (see at least pages 7-14 and Figure 4.1);
- *receiving generalized work products* (software process, Level 3—The Defined Level, software work products described in Software Product Engineering, projects) *and storing the generalized work products in a first table* (Software Project Planning) (see at least pages 11, last paragraph through page 13, page 36, third paragraph and Figure 3.3);

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- *relating the individual requirements* (Operational Definition of the Capability Maturity Model, key determiners of process capability) *of the at least one maturity model stored in a second table* (Building the CMM Structure) *to the generalized work products stored in the first table* (i.e. operations maturity model) (see at least pages 32-37, third paragraph and Figure 3.3);
- *receiving company-specific work products* (infrastructure, Activities, key practices, sub-processes) *and storing the company-specific work products in a third table* (see at least pages 39, section 3.5 through page 41);
- *associating* (Software Process Assessments and Software Capability Evaluations) *at least some of the company-specific work products stored in the third table with at least some of the generalized work products stored in the first table* (see at least page 47, section 4.2 through page 48);
- *tracing* (audit trail) *the company-specific work products stored in the third table to the individual requirements of the at least one maturity model stored in the second table through the association of the at least some company-specific work products stored in the third table with at least some of the generalized work products stored in the first table* (see at least page 38, last paragraph and page 48);
- *generating an association that lists the company-specific work products adjacent to the generalized work products of the at least one maturity model and that shows associations between the generalized work products of the least one maturity model and the company-specific work products on a display* (to establish a base of comparison for process improvements at higher maturity levels) (see at least page 9, last paragraph and page 47, section 4.2 through page 48);
- *receiving input through the association comprising **one of**: creating an association between company-specific work products adjacent and generalized work products of the at least one maturity model* (key process areas at Level 2); *and removing* (key process areas at Level 3, Peer Reviews, Defect Prevention) *an association between listed company-specific work products and generalized work products of the at least one maturity model* (remove defects from the software work products) (see at least page 33, first paragraph through page 37, third paragraph);
- *providing an indicator of the maturity of the company in view of the at least one maturity model* (attributes that would be expected to characterize an organization at a particular maturity level, The maturity levels in the CMM describe the characteristics of an organization at a maturity level) (see at least pages 7-14, second paragraph and page 25, first paragraph).

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Paulk generally, but not specifically, teaches, *through a user interface, with a computer processor, a use interface, a keyboard, network connection, a port* (organization-wide software process database) (see at least page 12, last paragraph). Bowman-Amuah teaches *through a user interface, with a computer processor, a use interface, a keyboard, network connection, a port* in analogous art of configuration management with the use of a capability maturity model for the purposes of, "The Capability Maturity Model (CMM) for Software describes the software engineering and management practices that characterize organizations as they mature their processes for developing and maintaining software (see at least column 3, lines 23-50, column 6, lines 43-66 and column 24, lines 15-39).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the configuration management with the use of a capability maturity model as taught by Bowman-Amuah with the capability maturity model method of Paulk. One of ordinary skill in the art would have been motivated to do so for the benefit of gaining control over the processes and developing and maintaining products with a data-processing network (Bowman-Amuah, column 3, lines 23-50 and column 24, lines 15-33).

Additionally, Official Notice is taken that to automate methods with computer components and software are old and well known measures in the art at the time of the invention.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine *through a user interface, with a computer processor, a use interface, a keyboard, network connection, a port* with the teachings of Paulk. One of ordinary skill in the art would have been motivated to do so for the benefit of electronically interfacing with different sections and departments of an organization to evaluate company maturity.

With regard to Claims 2, 14, and 16, Paulk teaches *wherein the maturity of the company is determined in view of at least two maturity models* (software process capability, software process performance), *where in the individual requirements of the at least two maturity models are related to the generalized work products* (see at least page 3, section 1.2 through page 4, second paragraph).

With regard to Claim 3, Paulk teaches *wherein the at least one maturity model includes multiple levels of maturity* (five levels) (see at least page 7).

With regard to Claim 4, Paulk teaches *wherein the indicator of the approximate maturity is indicative of the highest of the multiple levels of maturity attained by the company* (key process areas) (see at least page 32).

With regard to Claims 5 and 8, Paulk teaches *wherein the indicator of approximate maturity is a percentage* (Process Capability and the Prediction of Performance) (see at least page 22, section 2.4 through page 24 and Figure 2.4).

With regard to Claim 6, Paulk teaches *wherein the indicator of approximate maturity is provided in a report and the report includes a list of the individual requirements* (goals) *of the at least one maturity model that were not traceable to at least one of the company-specific work products* (see at least page 32, Figure 4.1, and Appendix A).

With regard to Claim 7, Paulk teaches *wherein report further includes a list of company-specific work products that were not associated with the generalized work products* (see at least page 32 and Appendix A).

With regard to Claim 9, Paulk teaches *a computer-implemented method for using a maturity tracing system* (planning and tracking of the software project) *in order to determine the maturity level of an organization in view of at least one maturity model comprising* (maturity model) (see at least pages 7-14):

- *receiving data indicative of organization-specific work products* (Five Levels of Software Process Maturity, software requirements) *into the maturity tracing system and storing the organization-specific work products in a first table* (see at least pages 7-14);
- *associating at least some of the organization-specific work products in the first table with at least some of the pre-existing generalized work products received with the maturity tracing system through a second user interface and stored in a second table* (Software Process Assessments and Software Capability Evaluations) (see at least page 47, section 4.2 through page 48);

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- *receiving a request for tracing of the organization-specific work products stored in the first table to maturity requirements for the at least one maturity model stored in a third table, wherein the maturity tracing system includes at least one computer application for relating the pre-existing generalized work products stored in the second table to the maturity requirements for the at least one maturity model stored in the third table (see at least page 12, second paragraph);*
- *listing the organization-specific work products adjacent to the pre-existing generalized work products of the at least one maturity model that shows associations between the pre-existing generalized work products of the at least one maturity model and the organization-specific work products on a display (to establish a base of comparison for process improvements at higher maturity levels) (see at least page 9, last paragraph and page 47, section 4.2 through page 48);*
- *receiving input comprising **one of**: creating an association between organization-specific work products and pre-existing generalized work products of the at least one maturity model (key process areas at Level 2); and removing (key process areas at Level 3, Peer Reviews, Defect Prevention) an association between listed company-specific work products and generalized work products of the at least one maturity model (remove defects from the software work products) (see at least page 33, first paragraph through page 37, third paragraph);*
- *receiving a request for a report indicating the approximate maturity level of the organization in view of at least one maturity model (attributes that would be expected to characterize an organization at a particular maturity level, The maturity levels in the CMM describe the characteristics of an organization at a maturity level) (see at least pages 7-14, second paragraph and page 25, first paragraph);*
- *displaying the report on a display (see at least page 32, Figure 4.1, and Appendix A).*



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Paulk generally, but not specifically, teaches, *through a user interface, with a computer processor, a use interface, a keyboard, network connection, a port* (organization-wide software process database) (see at least page 12, last paragraph). Bowman-Amuah teaches *through a user interface, with a computer processor, a use interface* in analogous art of configuration management with the use of a capability maturity model for the purposes of, "The Capability Maturity Model (CMM) for Software describes the software engineering and management practices that characterize organizations as they mature their processes for developing and maintaining software (see at least column 3, lines 23-50, column 6, lines 43-66 and column 24, lines 15-39).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the configuration management with the use of a capability maturity model as taught by Bowman-Amuah with capability maturity model method of Paulk. One of ordinary skill in the art would have been motivated to do so for the benefit of gaining control over the processes and developing and maintaining products with a data-processing network (Bowman-Amuah, column 3, lines 23-50 and column 24, lines 15-33).

Additionally, Official Notice is taken that to automate methods with computer components and software are old and well known measures in the art at the time of the invention.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine *through a user interface, with a computer processor, a use interface, a keyboard, network connection, a port* with the teachings of Paulk. One of ordinary skill in the art would have been motivated to do so for the benefit of electronically interfacing with different sections and departments of an organization to evaluate company maturity.

With regard to Claim 10, Paulk teaches *including querying text* (Maturity Questionnaire) *indicative of at least one of the pre-existing generalized work products and the maturity requirements for the at least one maturity model in order to ascertain description information therefore* (see at least pages 45-47, first paragraph).

With regard to Claims 11 and 12, Paulk does not specifically teach *wherein the description information is provided in a pop up window/through a hyperlink*. Bowman-Amuah teaches *wherein the description information is provided in a pop up window/through a hyperlink* in analogous art of configuration management with the use of a capability maturity model for the purposes of, "to easily create various repository reports" (see at least column 54, lines 39-56).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the configuration management with the use of a capability maturity model as taught by Bowman-Amuah with capability maturity model method of Paulk. One of ordinary skill in the art would have been motivated to do so for the benefit of providing reports with an intuitive user interface (Bowman-Amuah, column 54, lines 39-56).

With regard to Claims 13 and 19, Paulk teaches *company/organization specific products which do not match one of pre-existing generalized work products and maturity requirements for the at least one maturity model* (mismatches between tasks, differences) (see at least page 16, third paragraph and page 47, section 4.2 through page 48).

With regard to Claim 20, Paulk teaches *a listing of a plurality of maturity models, the computer application further receiving input comprising a selection of one of the plurality of maturity models* (software process capability, software process performance) (see at least page 3, section 1.2 through page 4, second paragraph).

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**11. Examiner's Note:**

The invention, as disclosed in the instant application, is directed to determining the maturity level of an organization in view of at least one maturity model. The instant application may disclose patentable subject matter; however not all of the disclosed potentially patentable subject matter is recited in the claims. An interview with the Examiner may be productive.

***Conclusion***

**12.** The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Guheen et al. (U.S. 7,315,826) discloses comparitely analyzing vendors of components required for a web-based architecture including using a capability maturity model to characterize an organization.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS MANSFIELD whose telephone number is (571)270-1904. The examiner can normally be reached on Monday-Thursday 8:30 am-6 pm, alt. Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bradley Bayat can be reached on 571-272-6704. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. M./  
Examiner, Art Unit 3624

16 November 2009  
Thomas Mansfield

/Bradley B Bayat/  
Supervisory Patent Examiner, Art Unit 3624